



Section B:1

Waste Management

PROJECT MANAGERS

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SUMMARY

Waste Management (WM) consists of the Solid Waste Storage and Disposal, Project Baseline Summary (PBS) WM03, Work Breakdown Structure (WBS) 1.2.1; Solid Waste Treatment, PBS WM04, WBS 1.2.2; Liquid Effluents - 200 Area, PBS WM05, WBS 1.2.3.1; and the Waste Encapsulation and Storage Facility, PBS TP02, WBS 1.4.2.

PBS WM05 is divided between WBS 1.2.3.1, Liquid Effluents (200 LEF) and WBS 1.2.3.2, 310 TEDF/340 Facility (300 LEF). The 310 TEDF/340 Facility work scope is included in the River Corridor Project, whereas the Liquid Effluents (200 LEF) work scope remains in Waste Management. For the purpose of performance analysis, PBS WM05 is reported in its entirety in the Waste Management Project (WMP), which has the majority of the work scope and funding.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, RL) shows one of one milestones (100 percent) completed early. Tri-Party Agreement milestone, M-91-12, "Initiate Thermal Treatment of Contact-Handled — Low Level Mixed Waste (CH-LLMW)," was renegotiated with two milestones established in 2002 and 2005.

NOTE: Unless otherwise noted, the Safety, Conduct of Operations, Milestone Achievement, and Cost/Schedule data contained herein is as of March 31, 2001. Other data is updated as noted.

NOTABLE ACCOMPLISHMENTS

Mixed Low Level Waste (MLLW) Treatment/Disposal – WM completed shipments of debris waste for macro-encapsulation (a total of 446 cubic meters [m^3] this fiscal year). WM completed an additional shipment of Savannah River Technology Center waste, including 5 drums and 28 hedgehog containers. A total of 472 m^3 of waste has been shipped to ATG fiscal year to date, and 66.6 m^3 of waste has been treated and disposed. ATG is currently drafting the waste profiles for the returned treatment residues.

Tri-Party Agreement Milestone M-91-12, "Initiate Thermal Treatment of Contact-Handled — Low Level Mixed Waste (CH-LLMW)," was renegotiated. The new milestone requires thermal treatment of 240 m^3 by December 2002, and thermal treatment of an additional 360 m^3 by December 2005.

A change request was approved to treat an additional 50 m^3 of Mixed Low Level Waste (MLLW) using savings from efficiencies in the treatment program this year. The additional 50 m^3 will consist of about 15 m^3 of thermally treatable waste and 35 m^3 of waste requiring stabilization.

Transuranic (TRU) Waste Retrieval - RL concurred with the Authorization Basis (AB) criteria document for TRU Retrieval, and stated retrieval activities are not considered a major facility modification. The Nondestructive Assay contract has been sent out for bid.

TRU Waste Processing – Fiscal Year to Date (FYTD) production through April 19, 2001: 566 Nondestructive Examination (NDE), 579 Nondestructive Assay (NDA), 186 Headspace Gas Analysis, 50 Glove box Repackaging, 7 Visual Examinations (VE), four shipments made to the Waste Isolation Pilot Plant (WIPP) and 35.2 m^3 certified for shipment.

Liquid Waste Processing - The 242-A Evaporator Campaign 2001-01 was completed in March. The campaign was a success with an overall waste volume reduction factor of 77 percent. The evaporator was started on schedule despite a number of challenges. Completing this campaign was crucial in that it allows CH2M HILL Hanford Group (CHG) to move forward more rapidly with this year's construction efforts in the tank farms. Groundwater processing has resumed.

Support to Nuclear Material Stabilization (NMS) Project - WM received the final Rocky Flats (RF) ash shipment from the Plutonium Finishing Plant (PFP) on March 29, 2001. Receipt of the last ash drums supported completion of Tri-Party Agreement milestone M-83-07, "Complete Repackaging and Shipping of RF Ash to the Central Waste Complex (CWC)." In March, WM received a total of 122 drums of the RF ash, bringing the total inventory of drums received to 299.

Following PFP's completion of the necessary actions to commence processing Hanford ash (including completion of required NDA Quality Assurance documents, authorization to initiate repackaging of the Hanford ash stream was received on April 6, 2001. WM is expected to begin receiving drums of the waste in mid-May.

Support to River Corridor Project (RCP) - The shipment and acceptance of the last 22½ ton box from the 324 B cell to the CWC was completed. The box will be placed into a concrete vault as resolved through the Authorization Basis (AB) review process.

Accelerate Readiness to Receive Spent Nuclear Fuel (SNF) K Basin Sludge - Five deck sections have been cleared at T Plant and significant progress has been made on additional deck sections. WM is on schedule to complete the clearing of ten sections this fiscal year. The de-posting of the T Plant canyon as a high radiation area was completed March 16, 2001.

Facility Evaluation Board (FEB) Assessment - The Final Report of the WM FEB assessment, conducted January 15 through February 1, 2001, was received. Each of the ten functional areas assessed was evaluated at the highest performance level ("green - effective overall performance"), as was the Project's performance to sustain, measure, and update a satisfactory Integrated Safety Management System (ISMS). No Core Issues (those issues that might indicate a programmatic breakdown) were identified, and the report cited nine Project strengths, including one Noteworthy Practice.

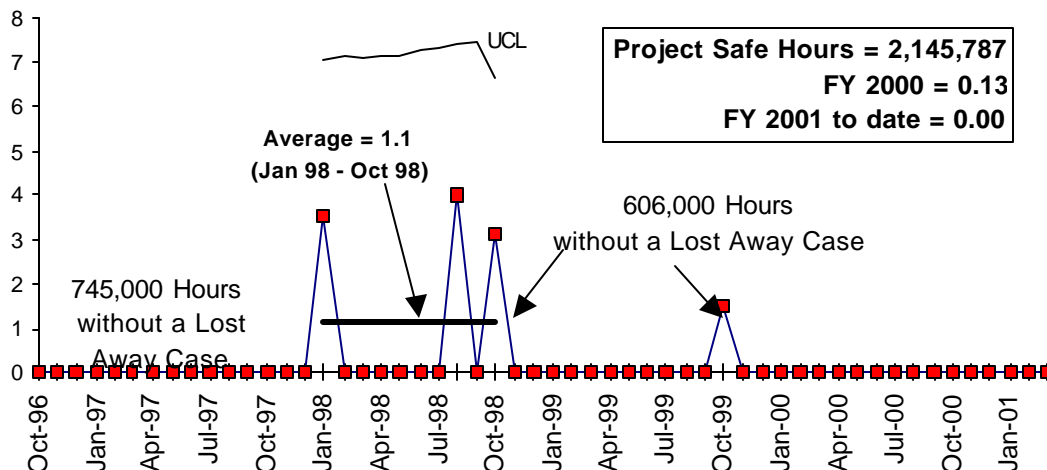
Defense Nuclear Facility Safety Board (DNFSB) Recommendation 2000-2 - The Phase 1 assessment required to implement DNFSB Recommendation 2000-2 at the Waste Encapsulation and Storage Facility (WESF) was completed on April 24, 2001. The assessment focused on the reliability and degradation of vital safety systems operations and the capability to apply engineering expertise to maintain the configuration of these systems. The assessment went very well and no problems of consequence were discovered.

SAFETY

During March, there was one Restricted Workday Case and two First Aid Cases, and one Not Job Related Case. The OSHA recordable case rate is stable. Additionally, a significant decrease in First Aid Cases has been noted at WM.

Lost Away Workday Case Rate

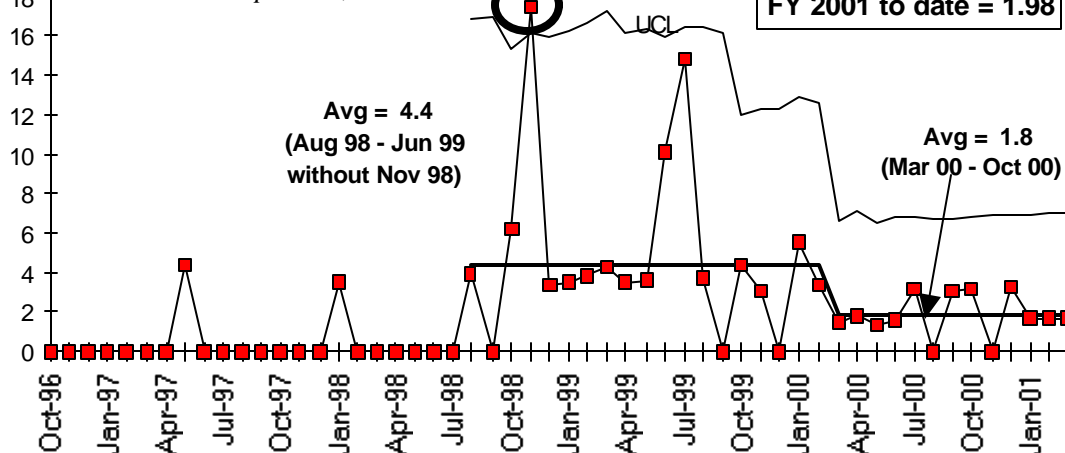
Cases per 200,000 hours



Green

OSHA Recordable Case Rate

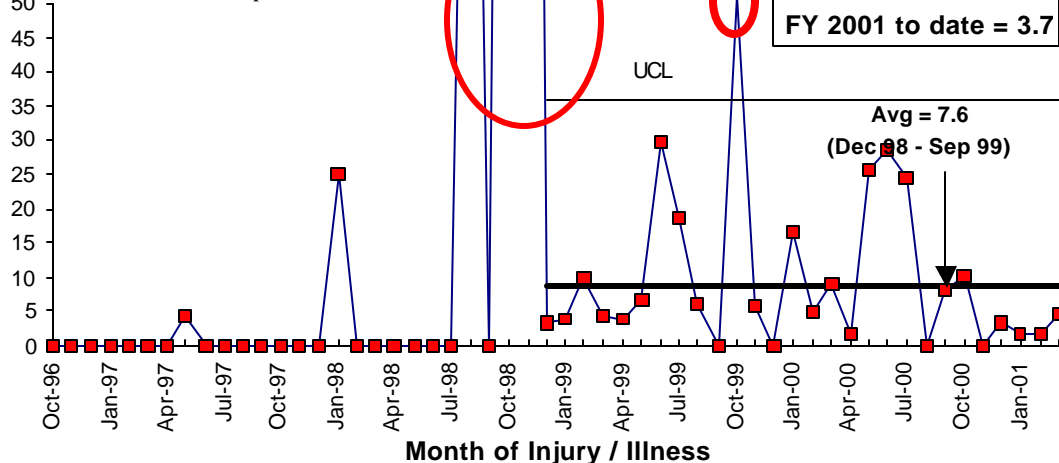
Cases per 200,000 hours



Green

DOE Safety Cost Index

Cents per hour



Green

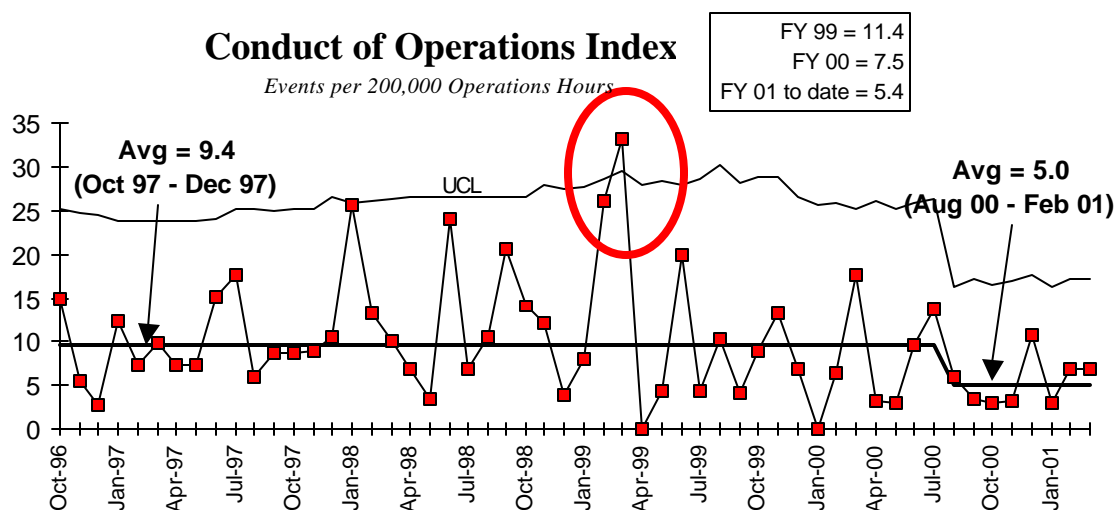
ISMS STATUS

Green

- The WM Facility Evaluation Board assessment was performed and the final report issued. The Project's performance to sustain, measure, and update a satisfactory Integrated Safety Management System (ISMS) was evaluated at the highest performance level ("green - effective overall performance"). No Core Issues were identified.

CONDUCT OF OPERATIONS

Green



BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

Breakthroughs

Nothing to report at this time.

Opportunities for Improvement

Green

- **T Plant Canyon Preparation for Receipt of Spent Fuel Sludge** — WM continues to work to prepare the T Plant canyon. Opportunities for improvement include:
 1. Optimizing the use of waste containers in the canyon during canyon clean out. Agreement with RL was reached to allow for higher utilization of waste containers within the Performance Based Initiatives of the FH contract.
 2. Size reduction technologies were successfully deployed in the T Plant canyon. Use of the LaBounty Shear in the canyon to remotely size reduce large metal components was successful. In addition, plasma torch cutting in the T Plant canyon was deployed in April. These technologies are also a pilot of capabilities needed for Tri-Party Agreement milestone M-91 processing.

UPCOMING ACTIVITIES

MLLW Treatment - Shipments to ATG for FY 2001 commercial treatment are expected to be complete in May.

Accelerate Readiness to Receive Spent Nuclear Fuel K Basin Sludge – By September 30, 2001:
1) Complete clearing of 10 sections of the T Plant deck; 2) Complete safety basis documentation and install long-lead procurements; 3) Install handling, drying and loading equipment, and 4) Initiate contractor readiness activities.

TRU Waste Shipment – The next shipments to WIPP are scheduled for June, July, and August 2001.

TRU Waste Retrieval - Operations is ready to begin removing drums from the stack and staging them for assay.

TRU Recertification Audit – The Hanford TRU recertification audit is scheduled for the week of June 11, 2001, and will include the use of the PFP's NDA and VE technique.

Liquid Waste Processing – Continue groundwater processing at the 200 Area Effluent Treatment Facility.

Nuclear Material Stabilization Support - Receive waste in support of PFP Hanford ash processing beginning in mid-May 2001.

Support to River Corridor Project (RCP) - Support continues to the 324 facility in the shipment and placement of Hittman liners in the Low Level Burial Ground to meet the July 31, 2001 commitment date.

Land Disposal Restriction (LDR) Report – The CY 2000 LDR report is on schedule for issuance by June 30, 2001. Upcoming activities include incorporation of comments and the review of the final draft document. *[See also Regulatory Issue on page 13.]*

MILESTONE ACHIEVEMENT

Green

MILESTONE TYPE	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			TOTAL FY 2001
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	1	0	0	0	0	2	0	3
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	0	0	0
Total Project	1	0	0	0	0	2	0	3*

* Tri-Party Agreement milestone, M-91-12, "Initiate Thermal Treatment of Contact-Handled — Low Level Mixed Waste (CH-LLMW)," was renegotiated. Two new milestones have been established for December 2002 and December 2005. The previous M-91-12 milestone has been removed from the above chart.

Only TPA/EA milestones and all FY 2001 overdue and forecast late milestones are addressed in this report. Milestones overdue are deleted from the Milestone Exception Report once they are completed. The following chart summarizes the FY 2001 TPA/EA milestone achievement and a Milestone Exception Report follows. The last milestone table summarizes the first six months of FY 2002 TPA/EA milestones.

FY 2001 Tri-Party Agreement / EA Milestones			
Number	Milestone Title	Status	
M-91-13 (A1C-01-001)	Initiate Disposal of CH-LLMW	Due 06/30/01 – Completed 9/15/1999	Green
M-91-18 (WMP-01-001)	Transmit T-Plant Sludge Storage Conceptual Design to Ecology	Due 06/29/01 – On Schedule	Green
M-26-05H (WMH-00-006)	Prep Biennial Tritium Treatment Technology Evaluation report	Due 08/31/01 – On Schedule	Green
DNFSB Commitments			
Nothing to report at this time.			

MILESTONE EXCEPTION REPORT

<u>Number/WBS Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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Overdue – 0

Forecast Late – 0

FY 1999 Overdue – 1

TRP-98-709 RL	Complete Hot Cell Deactivation	03/31/99	09/30/01
1.4.2	WESF Facility (A-E)		

Cause: This milestone is not complete due to not being supported at the current funding level.

Impact: No overall impact is expected.

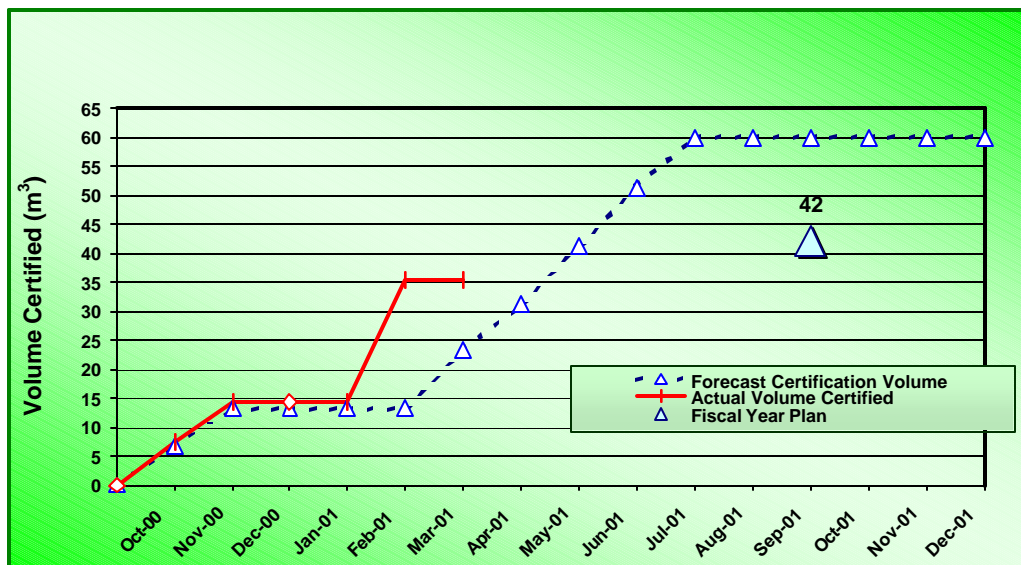
Corrective Action: Funding for this work scope [Return-on-Investment (ROI)] has been identified and a new forecasted completion date of September 30, 2001 established.

FY 2002 Tri-Party Agreement / EA Milestones		
Number	Milestone Title	Status
	Nothing to report at this time.	
DNFSB Commitments		
	Nothing to report at this time.	

PERFORMANCE OBJECTIVES

TRU Waste Certified

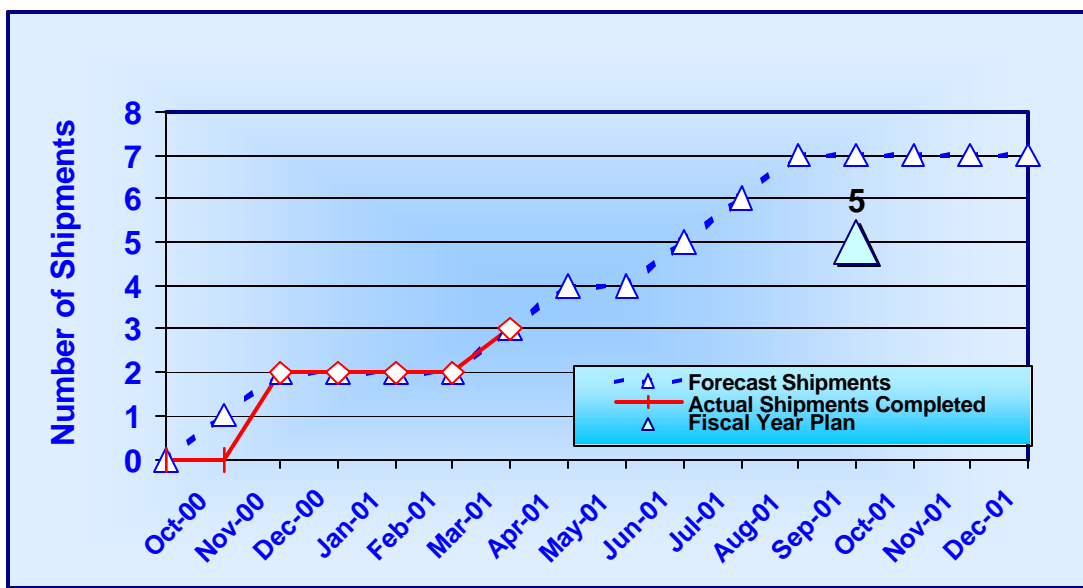
Green



Ahead of schedule with 35.3 m³ certified. Current forecast is to complete 60 m³ by September 2001.

TRU Waste Shipped

Green



On schedule. One additional shipment completed in April 2001, bringing the fiscal year to date total to four. Current forecast is to complete seven shipments by September 2001.

Retrieve TRU Waste

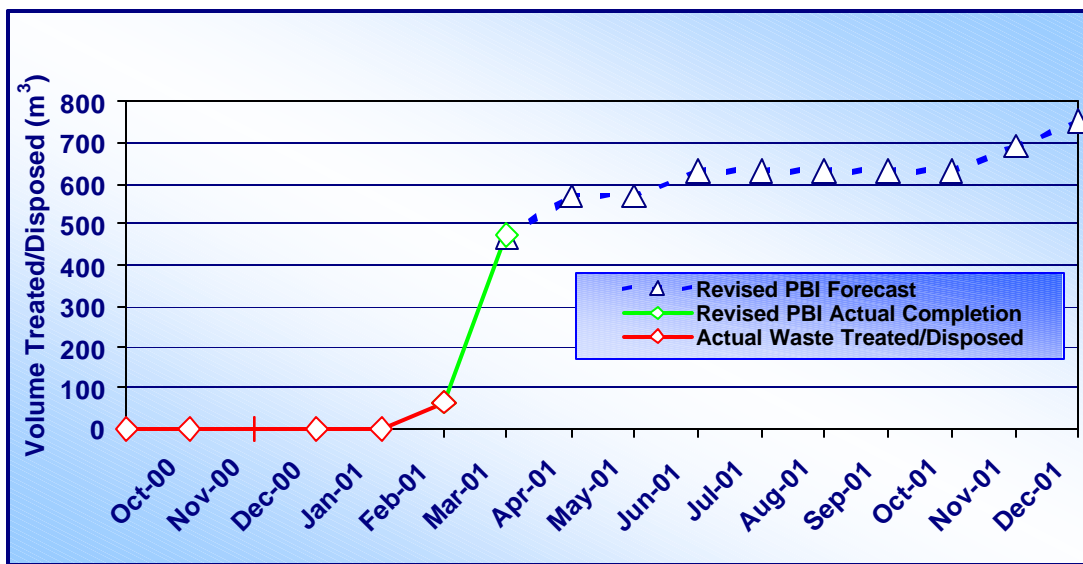
Yellow

	FY01												FY02			
	O	N	D	J	F	M	A	M	J	J	A	S	1st	2nd	3rd	4th
Retrieve Exposed Drums 600 Drums 9/30/01																
AB Documentation																
Environmental Permits																
Buried Drum Readiness																
Retrieve Buried Drums 1200 Drums 9/30/02																

The Baseline Change Request (BCR) for uncovered drum retrieval and buried drum retrieval readiness activities was approved in March 2001. Procurement of NDA subcontractor for FY 2001 drum retrieval was initiated three weeks late due to lack of project personnel.

Treat and Dispose Mixed Low Level Waste

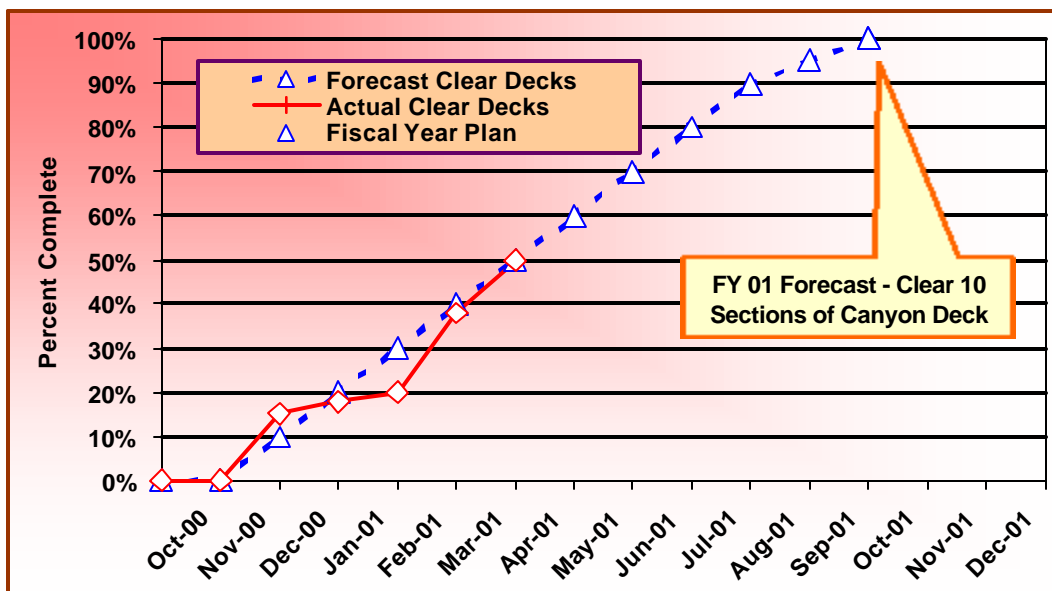
Green



On schedule. Through March 2001, 472 m³ was shipped to ATG and 66.6 m³ was treated and disposed.

T Plant Deck Clearing

Green



On schedule. To date, five deck sections have been cleared and substantial progress has been made on additional decks.

Fuel Removal Readiness

Green

	FY01												FY02			
	O	N	D	J	F	M	A	M	J	J	A	S	1st	2nd	3rd	4th
PWR FUEL																
Safety Documents																
Readiness																
Ship Fuel																

Safety documents and readiness activities are on schedule.

FY 2001 SCHEDULE / COST PERFORMANCE – ALL FUND TYPES CUMULATIVE TO DATE STATUS – (\$000)

Green

		FYTD									
	By PBS	BCWS	BCWP	ACWP	SV	%	CV	%	PEM	EAC	
PBS WM03 WBS 1.2.1	Solid Waste Storage & Disposal	\$ 12,055	\$ 11,950	\$ 11,174	\$ (104)	-1%	\$ 777	6%	\$ 25,073	\$ 26,389	
PBS WM04 WBS 1.2.2	Solid Waste Treatment	\$ 17,320	\$ 17,637	\$ 19,195	\$ 317	2%	\$ (1,558)	-9%	\$ 40,319	\$ 31,088	
PBS WM05 WBS 1.2.3	Liquid Effluents - 200/300 Area	\$ 13,568	\$ 13,967	\$ 11,549	\$ 399	3%	\$ 2,418	17%	\$ 27,410	\$ 25,640	
PBS TP02 WBS 1.4.2	WESF	\$ 5,203	\$ 5,198	\$ 5,133	\$ (6)	0%	\$ 64	1%	\$ 11,451	\$ 11,537	
Total		\$ 48,146	\$ 48,752	\$ 47,051	\$ 606	1%	\$ 1,701	3%	\$ 104,254	\$ 94,654	

Authorized baseline as per the Integrated Planning Accountability, and Budget System (IPABS) – Project Execution Module (PEM).
Note: Above data includes RL contract for Steam.

FY TO DATE SCHEDULE / COST PERFORMANCE

Cost and schedule variances for the Waste Management Project are within established thresholds.

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

Schedule Variance Analysis: (+\$0.6M)

Solid Waste Storage & Disposal — 1.2.1/ WM03

Description /Cause: The unfavorable schedule variance of \$0.1M (1 percent) was within the established threshold.

Impact: No Impact.

Corrective Action: No corrective action required.

Solid Waste Treatment — 1.2.2/ WM04

Description /Cause: The favorable schedule variance of \$0.3M (2 percent) was within the established threshold.

Impact: No Impact.

Corrective Action: No corrective action required.

Liquid Effluents — 1.2.3.1/ WM05

Description /Cause: The favorable schedule variance of \$0.4M (3 percent) was within the established threshold.

Impact: No Impact.

Corrective Action: No corrective action required.

WESF — 1.4.2/ TP-02

Description /Cause: There is no schedule variance.

Impact: No Impact.

Corrective Action: No corrective action required.

Cost Variance Analysis: (\$1.7M)

Solid Waste Storage and Disposal — 1.2.1/WM04

Description and Cause: The favorable cost variance of \$0.8M (6 percent) was within the established threshold.

Impact: None.

Corrective Action: No corrective action required.

Solid Waste Treatment — 1.2.2/WM04

Description and Cause: The unfavorable cost variance of \$1.6M (9 percent) is primarily due to a contract dispute settlement that requires payment upon shipment of waste, rather than the previous agreement of payment on return of waste.

Impact: None.

Corrective Action: The contract variance will be eliminated by year-end.

Liquid Effluents — 1.2.3/WM05

Description and Cause: The favorable cost variance of \$2.4M (17 percent) is primarily due to labor underruns, reduced sample analysis and a reduced need for crane and rigging.

Impact: None.

Corrective Action: The underruns will be used to partially fund TRU retrieval.

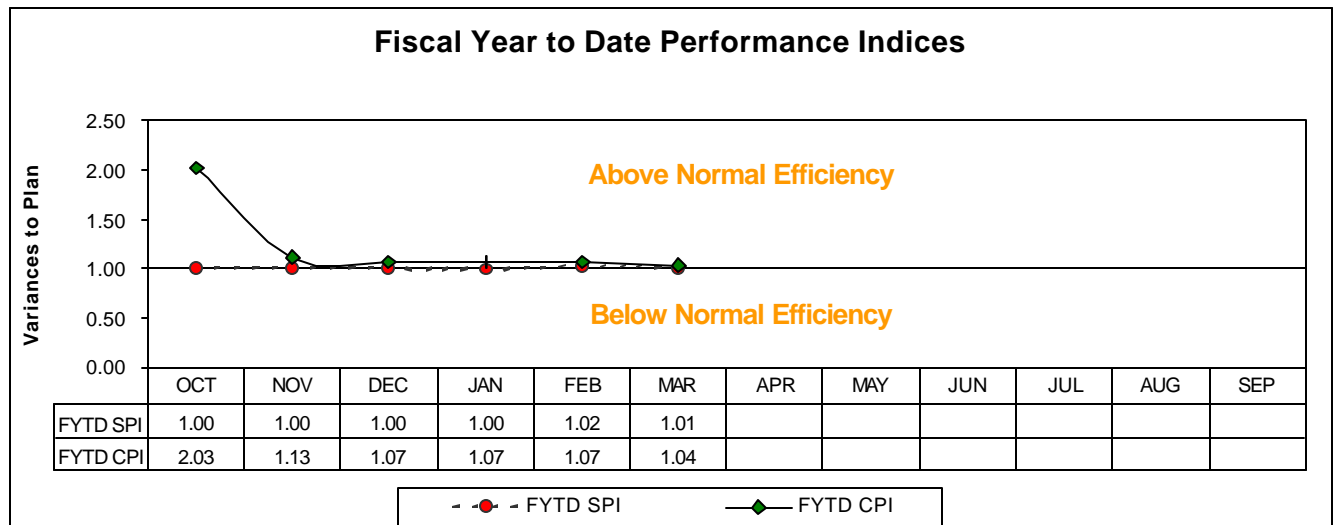
WESF — 1.2.4/TP02

Description and Cause: The favorable cost variance of \$0.1M (1 percent) was within the established threshold.

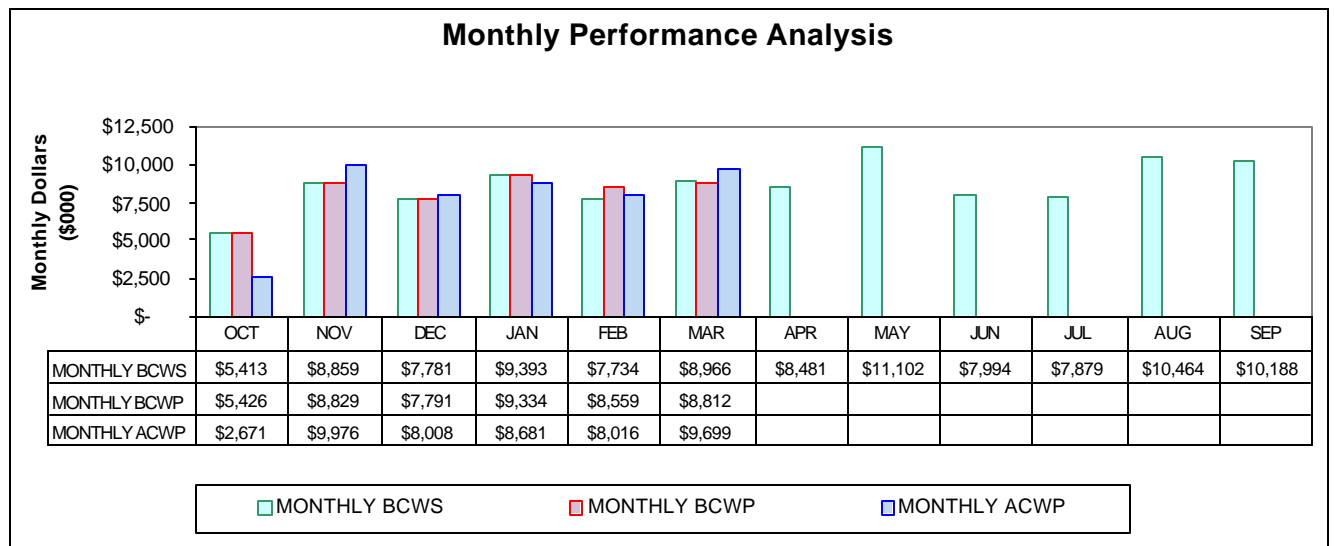
Impact: None.

Corrective Action: No corrective action required.

FYTD SCHEDULE / COST PERFORMANCE



MONTHLY SCHEDULE / COST PERFORMANCE



FUNDS MANAGEMENT — FY 2001 TO DATE

FUNDS VS SPENDING FORECAST (\$000)

Green

	Project Completion *			Post 2006 *			Line Items *		
	Funds	FYSF	Variance	Funds	FYSF	Variance	Funds	FYSF	Variance
The Plateau									
1.2 Waste Management									
TP02,WM03-05				\$ 97,294	\$ 96,915	\$ 379			
Line Item									
Total Waste Mgt. Operating				\$ 97,294	\$ 96,915	\$ 379			
Total Waste Mgt. Line Item									

* Control Point

Notes: Above funding excludes set-aside for ATG, Inc. Termination for Convenience.

The above chart reflects the FH Project structure that divides certain Project Baseline Summaries between projects (e.g., WM05 – Waste Management and the River Corridor Project). Consequently, these figures will differ from those shown in other reports (as generated by the PEM system).

ISSUES

Regulatory Issues

Report for Hanford LDR for Mixed Wastes - The CY 2000 LDR report is due to the regulators by June 30, 2001, in accordance with Tri-Party Agreement milestone M-26-01, "Annual Hanford Land Disposal Restrictions Report." Proposed enforceable dates have not yet been provided for the "Potential Mixed Waste Table," which are, as a result of the LDR settlement with Washington State Department of Ecology (Ecology), a required part of the LDR report. This table lists materials that are not yet waste, but could be expected to become (mixed) waste in the future. The enforceable dates are for filling data gaps on the materials as well as starting negotiations with the regulators on a path-forward towards treatment and/or disposal.

Impacts: A concern exists with committing to enforceable dates that are not contractually mandated or may be impacted by ongoing budget exercises.

Corrective Action: Meetings are being held with FH Projects to develop enforceable commitment dates.

Tri-Party Agreement Milestone M-91-03, "Submit Hanford Site TRU/TRU Mixed (TRUM) Waste Project Management Plan (PMP) to Ecology" - Ecology has not approved completion of M-91-03. The adequacy of the Project Management Plan (PMP) is in dispute.

Impacts: There is no impact to work.

Corrective Actions: Ecology has completed its initial review of the draft PMP. The review was favorable, and noted that "substantial effort and progress towards developing an integrated waste management strategy for TRU/TRUM" has been made. However, Ecology has requested additional information in order to complete their review and approval. Discussions have been held with Ecology to agree upon the scope and content of the additional information requirements. Ecology and DOE have agreed to a further extension of the dispute to May 22, 2001 to allow sufficient time for preparation and approval of the PMP modifications.

Revision 7 of the Hanford Resource Conservation and Recovery Act (RCRA) Permit (a.k.a. Modification E) Application — On March 30, 2001, RL, FH, Pacific Northwest National Laboratory, Bechtel Hanford, Inc., and CHG appealed the permit to the Washington Pollution Control Hearing Board. This stayed the effective date of the permit until the matter is resolved before the Board. The hearing has been scheduled to begin late October 2001.

Impact: There is the potential for substantial unplanned compliance costs and issues at the Waste Receiving and Processing facility and at the CWC. Costs may be incurred to support any litigation activities.

Corrective Action: A pre-hearing scheduled with the Pollution Control Hearing Board on May 22, 2001, with the appeal being heard from October 22 to November 5, 2001.

Environmental Assessment (EA) for new LLBG Trenches — An EA to support construction of four new trenches in the LLBG was issued for public comment. The new trenches are proposed for construction within the existing footprint of the LLBG, and are needed to support forecasted waste receipts and the segregation of Category I and Category III low-level waste. The public comment period is being evaluated for extension to May 11, 2001, due to a request from the Hanford Advisory Board. RL is evaluating the EA to see if it qualifies as an interim action to the Hanford Site Solid Waste Environmental Impact Statement. Both Ecology and Heart of America may be considering litigation if a "Finding of No Significant Impact" is issued for the EA. Currently the excavating season is diminishing due to the biological concerns associated with nesting birds.

Impact: Delaying excavation could jeopardize the Parks Township funding. Delays may affect the ability to use Parks Township funding for new trench construction. Delays may also have significant impact on the adequacy of trench space to support forecasted waste volumes.

Corrective Action: This issue will continue to be worked with RL.

Technical, External, DOE Issues and DOE Requests

None identified at this time.

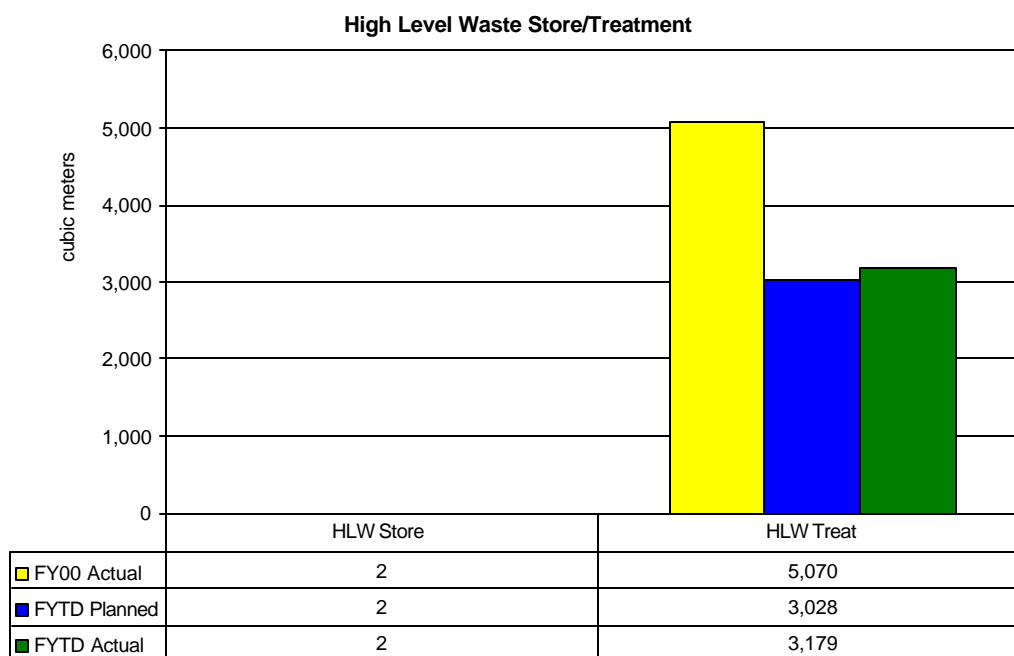
BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

PROJECT CHANGE NUMBER	DATE ORIGIN.	BCR TITLE	FY00 COST IMPACT \$000	S C H	T E C H	DATE TO CCB	CCB APR'VD	RL APR'VD	CURRENT STATUS
WM-2001-017	3/12/001	Assessment of 10CFR830	\$326			03/27/01	04/23/01	NA	Approved
WM-2001-018	03/20/01	TRU Production/WIPP Cert	\$400	X		03/27/01	03/28/01	NA	Approved
WM-2001-020	03/28/01	Unassigned Waste Sites	\$71			04/11/01	TBD		
WM-2001-021	04/06/01	Treatment of Additional MLLW	\$200	X		04/11/01	04/23/01		Approved
ADVANCE WORK AUTHORIZATIONS									
		Nothing to report.							

KEY INTEGRATION ACTIVITIES

- **SNF Project Support** — Preparing T Plant to receive SNF K Basin sludge.
- **Liquid Effluents** —Continue support of UP-1 Groundwater treatment at the 200 Area Effluent Treatment Facility.
- **RCP Support** — WMP continues to provide support to RCP for the removal of waste from the 324 and 327 buildings.
- **NMS Project Support** – WMP continued its support to the NMS Project for the removal of waste from the PFP.

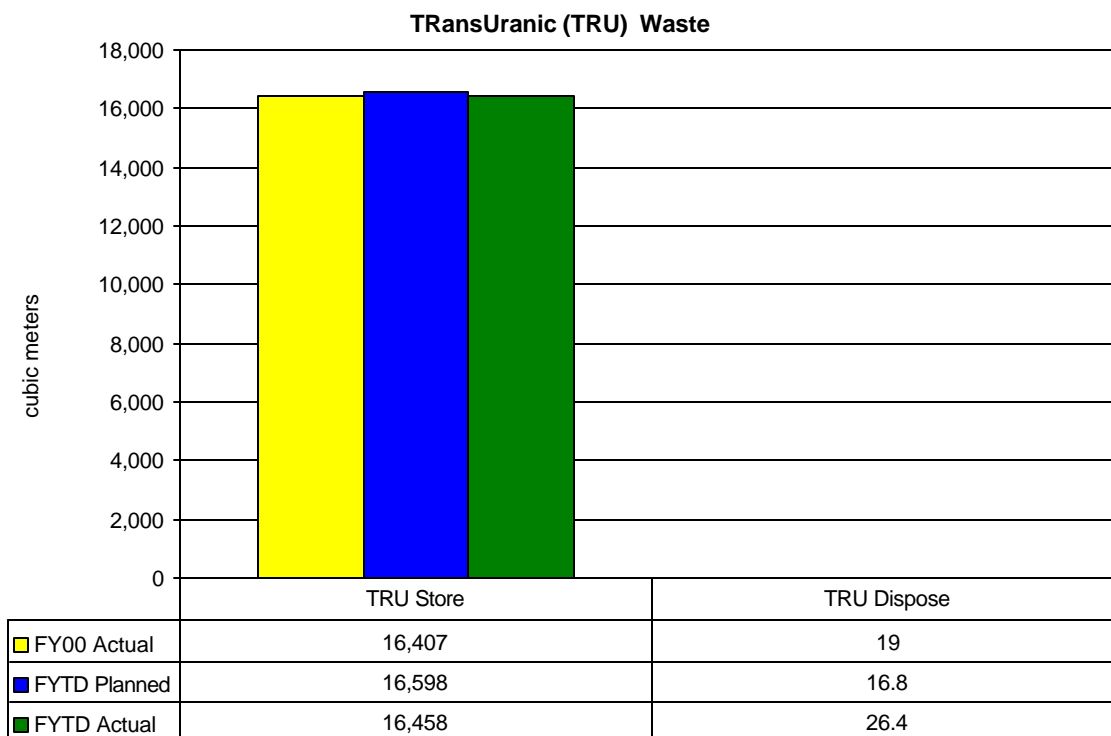
HIGH LEVEL WASTE (HLW): STORAGE AND TREATMENT



Storage: Storage continues to be provided for HLW Cesium 137 and Strontium 90 capsules in the Waste Encapsulation and Storage Facility Pool Cells.

Treatment: One campaign to process HLW at the 242A Evaporator was performed as planned during the 2nd quarter of FY01.

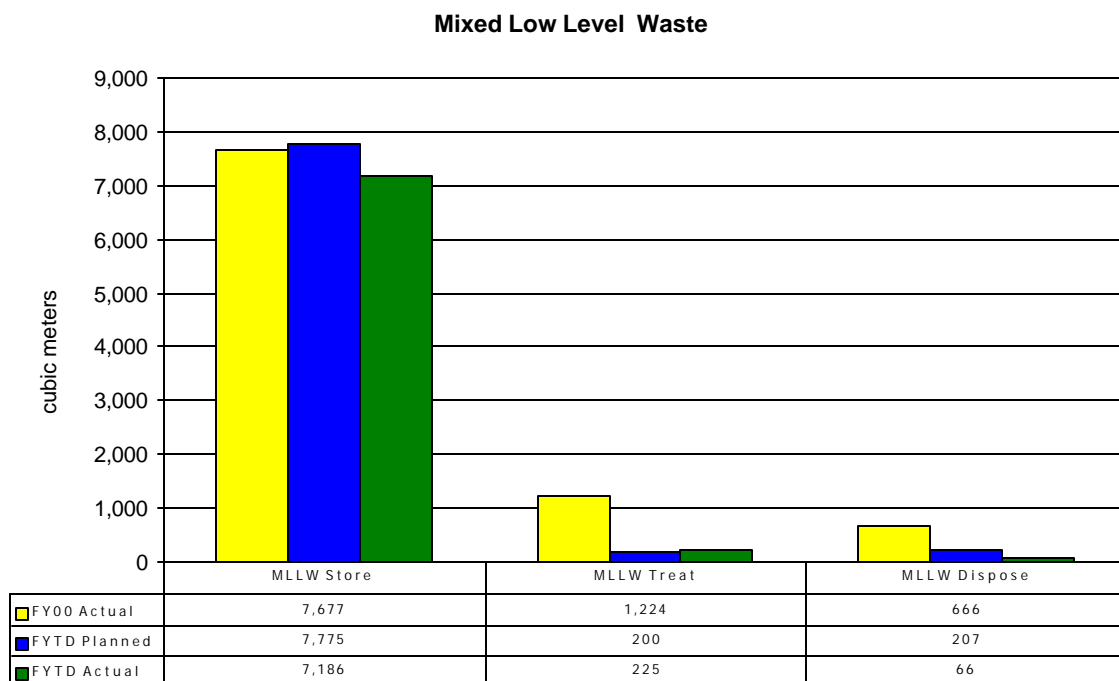
TRANSURANIC (TRU) WASTE: STORAGE, TREATMENT AND DISPOSAL



Storage: Storage continues to be provided for existing and newly generated TRU waste.

Disposal: One TRU shipment to the Waste Isolation Pilot Plant (WIPP) was completed ahead of schedule.

MIXED LOW LEVEL WASTE: STORAGE, TREATMENT, AND DISPOSAL

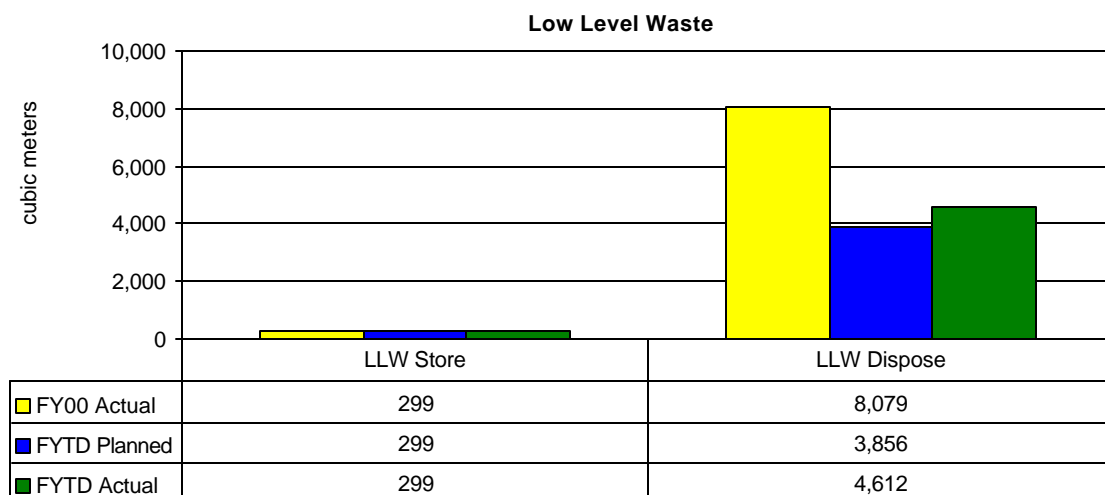


Storage: Storage continues to be provided for existing and newly generated MLLW waste. The current volume of MLLW in storage is within 10% of the planned amount.

Treatment: An additional 12.5% of MLLW was treated this quarter than planned as a result of non-thermal treatment (macro encapsulation) being ahead of schedule.

Disposal: Scheduled disposal volumes for FY01 are based on pre-treatment volume while the actual disposal value recorded is post-treatment. Currently we are seeing a greater than 2:1 reduction ratio.

Low Level Waste (LLW): Storage, Treatment, and Disposal



Storage: Storage continues to be provided for LLW that does not meet waste acceptance criteria for disposal in the burial grounds.

Disposal: The LLW received from onsite and offsite generators were disposed in the burial ground. LLW receipt and disposal are higher than planned due to the continued shipping from Parks Township.